BOGAYEVSKIY, A.P.; ZHEREBKOV, S.K.; GROZHAN, Ye.M.; POLYAKOVA, L.M.;
        CHELMODEYEV, A.D.

Investigating the chemical stability of the SKI-3 isoprene
rubber and of the rubber and ebonite based on it. Kauch. i
rez. 23 no.1:3-7 Ja '64.   (MIRA 17:2)

1. Nauchno-issledovatel'skiy institut rezinovoy promysh-
lennosti.

L 05650-67   EWP(j)/EWT(m)   IJF(c)   RM

ACC NR: AP6026761   (A)   SOURCE CODE: UR/0138/66/000/005/0024/0027

AUTHOR: Grozhan, Ye. M.; Zuyev, Yu. S.; Kikabidze, E. V.

ORG: Scientific Research Institute of the Rubber Industry (Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti)

TITLE: Study of the chemical stability of cured rubbers from raw butadiene-styrene rubbers

SOURCE: Kauchuk i rezina, no. 5, 1, 1966, 24-27

TOPIC TAGS: butadiene styrene rubber, carbon black, corrosion

ABSTRACT: The behavior of cured rubbers prepared from SKMS-30RP and SKMS-30ARKM-15 raw rubbers charged with furnace, lamp and channel gas black was studied in mineral acids (20% HCl, 50% H_2SO_4, 75% H_3PO_4) at 70°C by determining the swelling and strength characteristics after 25 days of contact with the acids. HCl was found to be the most corrosive medium. The cured rubbers from SKMS-30RP and SKMS-30RKM-15 charged with lamp black were equivalent in plasticity and heat and chemical stability to the rubber from SKB, and somewhat superior to the latter in resistance to 20% HCl. Since SKMS-30RP raw rubber had a set of properties superior to SKMS-30ARKM-15, it was charged with lamp black and used in further studies. The optimum amount of lamp black was found to be 80 pts. by wt. Rosin softener in the amount of 5 pts. by wt. was added with lamp black in order to improve the plasticity of the rubber. After 25 days of contact with

Card 1/2   UDC: 678.762.2-134.622:678.019.34

L 05650-67

ACC NR: AP6026761

20% HCl at 70°C, the tensile strength of this experimental rubber remained unchanged, whereas that of cured rubber from SKB decreased by 40%; the percent decrease of elongation in the experimental rubber was one-half that of the rubber from SKB, and its swelling was 12.5% versus 42% in the rubber from SKB. Orig. art. has: 2 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: 31May65/ ORIG REF: 007/ OTH REF: 001

Card 2/2

ZAMFIRESCU-GHEORGHIU, M.; VELICAN, D.; PETRESCU, M.; GROZIA, P.; SIGARTIA, E.

Contributions to the study of the enzymatic pattern of normal and
pathological lymph nodes. Rev. sci. med. 6 no.3/4:217-220 '61.
(HODGKIN'S DISEASE chemistry) (LYMPHADENITIS chemistry)
(LYMPH NODES chemistry) (SUCCINIC DEHYDROGENASE chemistry)
(CYTOCHROMES chemistry)

GROZIN, B. D.

  Metallography
    Alloys

DECEASED

c. '63

1963

06497

SOV/141-58-4-13/26

AUTHORS: Grozin, G.V.   and   Bezmaternykh, L.N.

TITLE: Investigation of the Electrical Breakdown in a
Waveguide at the Frequency of 9300 Mc/s (Issledovaniye
elektricheskogo proboya v volnovode na chastote 9300 Mgts)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,
1958, Nr 4, pp 111-115 (USSR)

ABSTRACT: The experiments described were carried out by means of
the equipment which is illustrated diagrammatically in
Fig 1. This consisted of: 1) a modulator;   2) a magnetron
oscillator;   3) the investigated waveguide section;
4) a power measuring device and (5) a metering system.
It was necessary to determine the probability of a
breakdown during a pulse. This was done as follows:
an aperture was provided in the middle of the wider wall
of the waveguide and a metallic rod was inserted into
the aperture (see the right-hand side diagram in Fig 1).
Since the lateral surface of the rod was insulated from
the waveguide, the breakdown occurred between the tip
of the rod and the opposite side of the guide. During

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SOV/141-58-4-13/26

Investigation of the Electrical Breakdown in a Waveguide at the
Frequency of 9300 Mc/s

the breakdown, the circuit of the capacitor C became
closed, so that a constant voltage E was connected to
the system. Consequently, the voltage to which the
condenser was charged depended on the number of
breakdowns. The condenser voltage could, therefore,
be used to determine the probability of a breakdown
during a pulse. An expression giving the breakdown
probability during a pulse in terms of the condenser
voltage U_C is derived. This is in the form of:

$$\theta = \frac{U_c r_0 C}{(t_1 + 1/\alpha)EF \Delta t} \tag{5}$$

where t_1 is the instant of the termination of a pulse,
F is the repetition frequency of the pulses and Δt is
the observation time; r_0 and α are the parameters
of the measuring system. The experimental results are
shown in Fig 2 and 3. Fig 2 shows the probability θ
as a function of applied power. Fig 3 illustrates the
Card 2/3   dependence of θ on the applied power for various values

06497

SOV/141-58-4-13/26

Investigation of the Electrical Breakdown in a Waveguide at the
Frequency of 9300 Mc/s

of the pulse duration (0.4 - 6µs). From the
experimental results it is concluded that the
breakdown power is independent of the repetition
frequency of the pulses for frequencies of
100 - 2000 pps and independent of the pulse duration
in the range of 0.4 - 6µs. There are 3 figures and
5 references, 4 of which are English and 1 Soviet.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri
Tomskom universitete (Siberian Physical-Technical
Institute of the Tomsk University)

SUBMITTED: 24th September 1957

Card 3/3

S/058/62/000/006/106/136
A062/A101

AUTHOR: Grozin, G.V.; Salivon, Yu. A.

TITLE: On certain resonance phenomena in a large cross section waveguide

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 19, abstract 6Zh127 ("Tr.
              Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te". 1960, no. 39, 34 - 36)

TEXT: An experimental confirmation is given of the resonance possibility on
higher wave types in a multiwave waveguide, which has to be taken into account
when estimating the band capacity of such a transmission line.

[Abstracter's note: Complete translation]

Card 1/1

S/058/62/000/005/110/119
A061/A101

9,988/
9,1400

AUTHORS: Bobrovnikov, M. S., Grozin, G. V., Red'kin, B. A.

TITLE: Power transmitted by a surface wave along a dielectric-coated metal
            cylinder

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 21 - 22, abstract 5Zh157
            ("Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te", 1960, no. 39,
            37 - 45)

TEXT: The transmission of electromagnetic energy of superhigh frequency
by a surface wave along an infinitely long, dielectric-coated metal cylinder has
been studied. The case is considered, when the cylinder radius $\le \lambda$. The power
transmitted inside and outside of the dielectric coating is calculated. The con-
ditions are found, under which the transmitted power, at which breakdown takes
place, will be minimum. The temperature is calculated to which the dielectric is
heated. Experimental data obtained from electric-strength tests with a single-
wire line in the case of pulse power transmission at $\lambda = 10$ cm are given.

[Abstracter's note: Complete translation]

Card 1/1

S/194/62/000/008/089/100
D413/D308

AUTHORS: Grozin, G.V., and Salivon, Yu.A.

TITLE: Certain resonance phenomena in wave guides of large
               section

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
               no. 8, 1962, abstract 8-7-135 yu (Tr. Sibirsk., fiz.-
               tekhn. in-ta pri Tomskom un-te no. 39, 1960, 34-36)

TEXT: It has been shown experimentally that in waveguides of large
section with non-uniformities present it is possible to get reson-
ant excitation of high-order modes. Experiments were carried out
with a rectangular waveguide of section 72 x 34 mm, excited through
a horn transition, over the band 2.9 – 3.8 cm. The amplitudes of
the various modes were determined by analysis of the field distribu-
tion. Resonance curves for the amplitudes of the H_{20} and H_{40} modes
against λ, were obtained for various positions of the non-uniformity,
in the form of a stub, in the transverse section of the waveguide.
The width of the resonance curve is of the order of $0.1 \lambda/(\lambda_0)_{mn}$.

Card 1/2

Certain resonance phenomena in ...   S/194/62/000/008/089/100
D413/D308

4 references. [Abstracter's note: Complete translation.]

Card 2/2

S/194/62/000/008/090/100
D413/D308

9.14(0)

AUTHORS: Bobrovnikov, M.S., Grozin, G.V., and Red'kin, B.A.

TITLE: The power carried by the surface wave along a metallic
             cylinder with dielectric coating

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
             no. 8, 1962, abstract 8-7-137 i (Tr. Sibirsk. fiz.-
             tekhn. in-ta pri Tomskom un-te, no. 39, 1960, 37-45)

TEXT: The authors investigate the transmission of microwave ener-
gy by the surface wave along an infinite metallic cylinder covered
with a layer of dielectric. They consider the case where the radius
of the cylinder is of the same order as the wavelength or rather
less. They calculate the power transmitted inside and outside of
the dielectric layer. The conditions are found for the minimum
transmitted power at which breakdown takes place. They calculate
the temperature to which the dielectric is heated. Experimental fi-
gures are quoted from the testing of a single-wire line for elec-
tric strength when carrying high-power pulses at λ = 10 cm. [Ab-
stracter's note: Complete translation.]
Card 1/1

GROZIN, I.V.; BEZMATERNYKH, L.N.

Investigation of disruptive discharges in wave guides at a frequency
of 9,300 mc. Izv.vys.ucheb.zav.; radiofiz. 1 no.4:111-115 '58.
                                              (MIRA 12:5)
1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom univer-
sitete.
          (Electric discharges)   (Wave guides)

MINDELI, E.O., kand.tekhn.nauk; KUSOV, N.F., kand.tekhn.nauk; ODNOPOZOV,
    Z.A., gornyy inzhener; RABICHEV, A.R., gornyy inzhener; MAMONOV, V.V.,
    gornyy inzhener; GROZIN, V.M., gornyy inzhener; OSNOVSKIY, P.V.,
    gornyy inzhener; VORONIN, V.S., inzhener-shakhtostroitel';
    MUKHIN, L.V., gornyy inzhener
    Discussion on N.V. Stadnichenko, V.T. Nazarov's article
    "Advantageous diameter size for boreholes." Ugol' 35 no. 4:31-35
    Ap '60.   (MIRA 14:4)

    1. Kombinat Rostovugol' (for Rabichev, Mamonov & Grozin). 2.
    Rostovskiy sovnarkhoz (for Osnovskiy & Voronin).
            (Blasting) (Boring) (Stadnichenko, N.V.) (Nazarov, V.T.)

51-1-17/18

AUTHORS: Sokolov, V. A.,   Grozina, I. S.   and   Gorban', A. N.

TITLE: On "Candoluminescence" of CaO and Al_2O_3. (K voprosu o kandolyuminestsentsii CaO i Al_2O_3).

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.III, Nr.1, pp.92-94. (USSR)

ABSTRACT: CaO and Al_2O_3 emit strongly in flames ("candoluminescence") due to oxidising and reducing reactions in chemically active regions of a flame.   Some workers (Ref.2) regard this emission as of purely thermal origin.   The present authors obtained spectra of CaO and Al_2O_3 emitting in town-gas flames and spectra of oxidation of Ca and Al by burning of metals in oxygen in front of a spectrograph slit. These spectra are shown in Figs.1 and 2.   The results obtained, together with a comparison of emission of CaO and Al_2O_3 with that of a black body, establish that "candoluminescence" is of purely thermal character and obeys Kirchoff's law.   The effect has nothing to do with true luminescence in the region of temperatures studied (above 600°C).   There are 4 figures and 3 references, 1

Card 1/2   of which is Slavic.

51-1-17/18

On' "Candoluminescence" of CaO and Al_2O_3.

SUBMITTED: February 15, 1957.

AVAILABLE:

Card 2/2

SOKOLOV, V.A.; GROZINA, I.S.; GORBAN', A.N.

Nature of candoluminescence of calcium oxide. Izv. TPI 9ɔ:
253-256 '58.   (MIRA 14:9)

1. Predstavleno professorom doktorom A.A.Vorob'yevym.
                    (Luminescence) (Calcium oxide)

GROZINSKAYA, Z.P.

A ball-burnishing attachment. Stan. i. instr. 26 no.11:23-25
N '55.
        (Lathes--Attachments) (Grinding and polishing)
(MLRA 9:2)

GRITHIN, J. P.

"The effect of technological factors in rolling balls on the quality of the surface layer." Acad Sci USSR. Inst of Machine Science. Moscow, 1956. (Dissertation for the Degree of Candidate in Techinal Sciences).

SO: Knizhnaya letopis', No. 16, 1956

AUTHOR

TITLE

PERIODICAL

GROZINSKAYA, Z.P.

121-8-8/22

Ball-Rolling Device for the Machining of Openings.
(Sharikovyye raskatki dlya obrabotki otverstiy.- Russian)
Stanki i Instrument 1957, Vol 28, Nr 8, pp 26-26

ABSTRACT

The majority of known and used devices are planned for the
machining of outer surfaces. The machining of internal surfaces by
means of the rolling method is less spread, which fact may
be explained by the lack of constructions capable of carrying
out this work. The investigation of the possibility of sub-
stituting lapping by rolling showed that a surface smoothness
of the 11-12 K standard can be attained but that the geometry
of openings is considerably distorted by high pressure.
An illustration shows a special type of 3-ball device, which
is explained in detail. The pressure depends on the force
of the spiral spring and is regulated by means of a nut. The
maximum spring pressure of the device explained is 120 kg
and the radial pressure on each ball is from 0 to 80 kg. The
experiments with the rolling of cast iron are of interest:
in one operation cycle a surface smoothness of from the 10-11
standard was obtained with no distortions of the openings on
the occasion of the rolling of openings of 22 mm ∅ (with a
tolerance of 0,02 mm to the diameter) by means of a 3-ball
device on a universal milling machine with a ball pressure

CARD 1/2

121-8-8/22

Ball-Rolling Device for the Machining of Openings.

of 60 kg and a feed of 0,04 mm per rotation (25 mm per minute) and with spindle-oil lubrication. The influence of surface roughness on final smoothness is illustrated. The device explained is used for the purpose of stabilizing and forming phases, which is explained in detail. Special importance must be attached to the rolling of cast-iron surfaces as many polishing methods for steel parts can not be used for cast iron parts.

ASSOCIATION: not given.
PRESENTED BY: -
SUBMITTED: -
AVAILABLE: Library of Congress.

CARD 2/2

GROZINSKAYA, Z.P.

Errors in determining regular corrugation of cylincrical
surfaces. Izm.tekh. no.9:3-5 S '60.   (MIRA 13:9)
    (Surfaces (Technology)--Testing)

S/028/60/000/011/004/007
B020/B058

AUTHOR: Grozinskaya, Z. P.

TITLE: The Roughness of Rolled Surfaces

PERIODICAL: Standartizatsiya, 1960, No. 11, pp. 24-26

TEXT: ГOCT 2789-59 (GOST 2789-59) "The Roughness of Surfaces" ("Sherokho-
vatost' poverkhnostey") specifies the measurement of roughness on a certain
length of the base line. Apart from the uniformity of measurement, the
differentiation of roughness from other types of unevenness, mainly of
corrugation, can thus be warranted. Rolling was carried out on a lathe of
the type T1616 by means of a three-ball appliance with a pressure of 100
kg on the balls, a side-feed of 0.18 mm/speed of rotation, 380 rpm, a
ball diameter of 26 mm, and a diameter of the machined workpiece of 70 mm.
Fig. 1 shows the profilogram of the rolled surface, recorded by the pro-
filometer-profilograph "Kalibr-ВЭИ" (Kalibr-VEI"). When evaluating the
profilogram for the estimation of roughness, the author used the parame-
ter R_z - the height of the unevenness determined from 10 points and as the
mean distance of five higher, elevated points and five lower, deepened
points, situated on the base line running parallel to the direction of

Card 1/2

VAYNSHTEYN, V.E.; GROZINSKAYA, Z.P.; D'YAKOVA, A.G.

Recording the waviness of tracks of ball-bearing rings. Izm.tekh.
no.2:6-8 F '61.

(Ball bearings—Measurement)   (MIRA 14:2)

GROZINSKAYA, Z.P.

Desintegration of a surface layer due to work hardening of steels.
Trudy Sem.po kach.poverkh. no.5:88-93 '61.   (MIRA 15:10)
(Surface hardening)

D'YACHENKO, P.Ye.; VAYNSHTEYN, V.E.; GROZINSKAYA, Z.P.; D'YAKOVA, A.G.

Some problems in measuring the waviness of internal ring tracks
of ball bearings. Trudy Sem.po kach.poverkh. no.5:210-218 '61.
(MIRA 15:10)

(Ball bearings—Testing)

GROZINSKAYA, Z.P.

Performance of ball rolls. Stan.i intr. 32 no.3:31-33 Mr '61.

(MIRA 14:3)

(Metals--Finishing)

D'YACHENKO, Petr Yefimovich; VAYNSHTEYN, Vera Edmundovna; GROZINSKAYA,
    Zoya Petrovna; BAL'YAN, L.G., red. izd-va; RASHEVSKAYA, Ye.Z.,
    tekhn. red.

    [Methods for checking and standardizing the undulations of
    surfaces]Metody kontrolia i standartizatsiia volnistosti po-
    verkhnosti. Moskva, Standartgiz, 1962. 94 p.   (MIRA 15:9)
            (Surfaces (Technology))—Testing)

S/115/62/000/002/002/009
E194/E484

AUTHOR: Grozinskaya, Z.P.

TITLE: Errors in measuring the waviness of cylindrical
            surfaces

PERIODICAL: Izmeritel'naya tekhnika, no.2, 1962, 9-11

TEXT: In measuring waviness on the outside of a cylinder with a
knife-edged V-gauge block and a probe, errors arise from
deviations in the shape of the parts and from errors of setting
and location.   The article gives a brief theoretical analysis of
such errors.   Consider for example, Fig.1, in which the V-block
is hinged relative to the probe. Here, O - the centre of rotation
of the measured surface; O' - its geometrical centre; B - the
centre of rotation of the V-block when the measured surface is not
eccentric; B' - corresponding position when the eccentricity is a
maximum; A and K - points of contact of the probe with the
measured surface of radius r ;   M - point of contact of one of
the knife edges of the V-block with the measured surface;
φ - V-block angle; β - angle between axes of V-block and probe.
Here, the error of measurement (a = BB' - AK) due to eccentricity
Card 1/4

Errors in measuring ...

S/115/62/000/002/002/009
E194/E484

of setting of the cylinder e is given by

$$a = \sqrt{\frac{r^2}{\sin^2 \varphi/2} - e^2 \cos^2 \alpha} - \frac{r}{\sin \varphi/2} -$$
$$- \sqrt{r^2 - e^2 \cos^2 \alpha} + r, \qquad (1)$$

If the reference block is a semi-circle the error due to
eccentricity is given by

$$a = (r - \sqrt{r^2 - e^2 \cos^2 \alpha}) - (P - \sqrt{P^2 - e^2 \cos^2 \alpha}). \qquad (2)$$

If the cylinder has ovality, waviness cannot be measured with a
semi-circular gauge block. Using existing methods the actual
height of waves cannot be measured because of errors introduced
by the method of measurement, the reference system, the design of
the V-block gauges and other factors. It is very difficult to
analyse measurement results to exclude errors. However, it is
Card 2/4

Errors in measuring ...

often possible and sufficient to determine what part of the wave height read on the profilogram corresponds to the actual wave height. In measuring waviness the cylinder may be in such a position that both edges of the V-block and the probe all rest on the crests of waves and this is considered as the initial or reference position. Other positions which may arise are when the knife edges are touching the peaks of waves and the probe is in a trough. The difference between this and the initial position is the wave height H_B. If the knife edges are touching the troughs and the probe is touching a peak the probe is displaced, because of displacement of the prism by an amount equal to $H_B/(\sin \varphi/2)$. Finally, if both knife edges and the probe all touch the troughs of waves the displacement is $H_B/(\sin \varphi/2)$ where φ is the angle of the V-block. The actual wave height may then be calculated as

$$H_{B\ actual} = H_{B\ max}\left(\frac{\sin \varphi/2}{1 + \sin \varphi/2}\right)$$

Card 3/4

S/129/62/000/002/008/01-
E073/E535

AUTHORS: Grozinskaya, Z P , Candidate of Technical Sciences and
             Gal'perin, M.Ya , Engineer

TITLE: On increasing the fatigue strength by work-hardening
             the surface with balls

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov
             no 2, 1962 43-45

TEXT: The authors investigated the influence of surface
work-hardening of smooth 10 mm diameter specimens made of normal-
ised steel 45 (0.45% C, 0 3% Si, 0 7% Mn, 0 08% Cr, 0.1% Ni
0.017% S, 0.028% P) by means of a 3-ball attachment on a lathe
The fatigue tests were in pure bending in a symmetrical cycle of
a frequency of 3000 cycles/min with a total duration of 10^7 cycles
Various characteristics of the work-hardened layer were produced
by changing the conditions of work-hardening so as to obtain
a) various surface hardness values with a constant depth δ of the
work-hardened layer and b) various depths of the work-hardened
layer and a constant surface hardness   The following conclusions

Card 1/3

On increasing the fatigue

S/129/62/000/002/008/014
E073/E535

were arrived at:
1) A reduction of the feed rate and an increase in the number of passes at the appropriate pressure brings about an increase in hardness as well as an increase in the fatigue strength, provided that $\delta/R < 0.2$ (R - radius of the work-hardened specimen).
2) The most rational ball diameter is the one which produces maximum work-hardening whilst simultaneously maintaining the ratio $\delta/R > 0.2$
3) For improving the fatigue strength, the depth and degree of work-hardening must in every case be chosen in accordance with the work-hardened material and the work-hardening conditions
The paper contains plots of the fatigue strength, the depth of the work hardened layer and the hardness resulting from work-hardening as a function of pressure, feed rate, ball diameter and the number of passes, for a ball load of 50 kg. Fig.2 shows plots of the increase in the fatigue strength as a function of the hardness (Fig.2a) and the relative depth of work-hardening (Fig.2b)
There are 2 figures, 1 table and 3 Soviet-bloc references

Card 2/3   Institut mashinovedeniya AN SSSR

YAKUBOVICH, D.S.; GROZINSKAYA, Z.P.; SANZHAROVSKIY, A.T.; ZUBOV, P.I.

Studying the physicomechanical properties of polyurethan coatings.
Lakokras.mat.i ikh prim. no.6:32-37 '62.   (MIRA 16:1)
    (Protective coatings--Testing) (Ethyl carbamate)

D'YAKOVA, A. G.; GROZINSKAYA, Z. P.

Selecting the area length for measuring surface waviness.
Izm. tekh. no.10:13-14 O '62.
                                                (MIRA 15:10)

(Surfaces(Technology)—Measurement)

GROZHEVSKIY, B...; ZHVBROVSKIY, A.T.; ZYBA.

Therma. aging of nitrocellulose coatings. Koll.zhur. 2* no.3:
290-303 My-Je 163.

(MIRA 17:10)

1. Institut fizicheskoy khimii AN SSSR, Moskva.

GROZINSKAYA, Z.P.; SANZHAROVSKIY, A.T.; ZUBOV, P.I.

Thermal aging of polyester coatings. Koll.zhur. 25 no.5:505-511
S-O '63. (MIRA 16:10)

1. Institut fizicheskoy khimii AN SSSR, Moskva.

ZUBOV, P.I.; GROZINSKAYA, Z.P.; SANZHAROVSKIY, A.T.

Effect of the duration of heating on the deformation properties of polymer films. Koll.zhur. 25 no.5:533-536 S-O '63. (MIRA 16:10)

1. Institut fizicheskoy khimii AN SSSR, Moskva.

L 11402-63   EPR/EWP(j)/EPF(c)/EWT(m)/BDS   AFFTC/ASD   Ps-4/Pc-4/Pr-4   RM/WW
                                                    S/032/63/029/005/016/022   7/

AUTHORS: Grozinskaya, Z. P., Kiselev, M. R. and Zubov, P. I.

TITLE: Method of determining wear of polymeric coatings

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 5, 1963, 610

TEXT: A method of determining the wear resistance of polymeric coatings
and films is proposed, based on a combination of friction -- sliding to-and-fro
motion and vibrating motion of a rubbing body in a direction perpendicular to
the abraded surface. This was accomplished with an electrical device which is
described; the wear on a given test piece varied linearly with the time, and
the results of tests of several materials agreed with results obtained by other
methods. There is one figure.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of
             Physical Chemistry of the Academy of Sciences USSR)

ja/
Card 1/1

ZUBOV, F.I.; GROZINSKAYA, E.P., SANZHAROVSKIY, A.T.

Studying polymeric coatings during the process of their aging.
Lakokras.mat. i lkh prim. no.2:33-36 '64.   (MIRA 17:4)

ACCESSION NR: AP4018157   S/0191/64/000/003/0005/0009

AUTHORS: Zubov, P.I.; Grozinskaya, Z.P.; Sanzharovskiy, A.T.

TITLE: Thermal aging of polyethylene films.

SOURCE: Plasticheskiye massy*, no.3, 1964, 5-9

TOPIC TAGS: polyethylene, polyethylene film, polyethylene coating,
internal stress, modulus of elasticity, tensile strength, elongation,
thermal effect, thermal aging

ABSTRACT: The changes in internal stress, modulus of elasticity,
tensile strength and elongation of polyethylene films and coatings
with aging at temperatures from -60 to +100C were investigated. Roll-
ing the films during forming improves their mechanical properties.
The presence of a stabilizer (0.13% neozon A, 0.07% diphenyl-p-Phenyl-
enediamine, and 1.5% gas black) in polyethylene raises its resistance
to thermal aging, while the mechanical properties of unstabilized
polyethylene are lowered in 20 days; the stabilized material does not
change in 40 days. Thermal aging of polyethylene is analagous to that

Card 1/2

ACCESSION NR: AP4018157

of nitrocellulose and polyester coatings. Cooling the film strength-
ens the intermolecular interaction, increases the modulus of elastici-
ty and strength, and also increases internal stresses which retard re-
laxation processes, and causing cracking and peeling. Heating will
enhance relaxation of the internal stresses and close up the defects
of the coating. Orig. art. has 11 figures.

ASSOCIATION: None

SUBMITTED: 00   DATE ACQ: 27Mar64   ENCL: 00

SUB CODE: MA, PH   NR REF SOV: 001   OTHER: 000

Card   2/2

L 13075-66   EWT(m)/EWP(v)/EWT(j)/T/EWP(t)/EWP(b)/EWA(h)   IJP(c)   JD/
WW/RM

ACC NR: AP5028915   SOURCE CODE: UR/0020/65/165/003/0626/0628

AUTHOR: Kabanov, V. Ya.; Grozinskaya, Z. P.; Zubov, P. I.; Spitsyn, Vikt. I. (Academician)

ORG: Institute of Physical Chemistry, Academy of Sciences SSSR (Institut fizicheskoy khimii Akademii nauk SSSR)

TITLE: The study of adhesion of polyethylene coatings on aluminum bases during irradiation

SOURCE: AN SSSR. Doklady, v. 165, no. 3, 1965, 626-628

TOPIC TAGS: adhesive bonding, polyethylene plastic, protective coating, irradiation effect, ADHESION, ELECTRON BEAM

ABSTRACT: It was found earlier by the authors (Vysokomolek. soyed., in print) that prolonged low intensity irradiation of polyethylene coatings results in a considerable increase in adhesion. The present paper describes the direct investigation of such adhesion on samples subjected to a beam of accelerated electrons. Samples were prepared from nonstabilized low-pressure polyethylene deposited by melting on 50μ-thick aluminum foil supports. The heating lasted 10 min. at 230C with a subsequent application of 6 kg/cm^2 of pressure. Results are summarized on Table 1.
                                                            UDC: 541.6

Card 1/3

L 13075-66

ACC NR: AP5028915

TABLE 1. Adhesion of polyethylene coatings to aluminum supports subjected to irradiation (samples were prepared three days prior to the tests).

NO. OF TEST	DOSE INTENSITY, X 10^{-4} RAD/SEC	IRRADIATION TIME PRIOR TO THE ADHESION DETERMINATION, MIN	ADHESION; KG/CM UNDER BEAM		ADHESION CURRENT μA	BEAM TURNED OFF	
			WITHOUT CHARGE REMOVAL	WITH CHARGE REMOVAL		WITHOUT CHARGE REMOVAL IMMEDIATELY AFTER TURNING OFF THE BEAM	WITH CHARGE REMOVAL IMMEDIATELY AFTER TURNING OFF THE BEAM
1	2,7	1	1	1	0,7	—	1
2	4,5	1	1	1	1,45	1	1
3	6,2	1	1	1	—	1	—
4	8,0	1	1	1	2,65	1	—
5	4,5	0,5 2 5	1 1 1	—	—	—	—

Card 2/3

L 13075-66

ACC NR: AP5028915

The independence of adhesion of dose intensity indicates that the Al-O-R and Al-R chemical bonds play no significant role. The analysis of the data indicate that the basic assumptions of the. electrical theory of adhesion cannot be used for the explanation of the influence of irradiation on adhesion between polyethylene and aluminum foils.
Orig. art. has: 2 figures and 1 table.

SUB CODE: 07,20,11/ SUBM DATE: 15May65 / ORIG REF: 002 / OTH REF: 002

Card 3/3

L 18469-66   EWT(m)/EWP(j)/T   RM

ACC NR: AP6004318   SOURCE CODE: UR/0303/65/000/005/0049/0051

AUTHOR: Grozinskaya, Z. P.; Zubov, P. I.

ORG: none

TITLE: Thermal aging of epoxy coatings in organic media

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 5, 1965, 49-51

TOPIC TAGS: epoxy plastic, resin, protective coating, thermal aging, lacquer

ABSTRACT: Experimental data on changes in the physicomechanical properties of cured epoxy coatings and films in the process of thermal aging carried out under cyclic conditions at 20-100°C in a 50% aqueous ethyl alcohol medium are presented. Changes in the internal stresses, elastic modulus, and swelling of films and coatings of ED-5 epoxy resin and E-4100 epoxy lacquer during thermal aging were determined. Films of E-4100 lacquer showed greater elastomeric deformations than did those of ED-5 resin, indicating a substantial difference in structural networks and relaxation processes on swelling. The difference in relaxation processes also accounts for differences observed in the peeling of the polymer films off metal sub-

UDC: 667.613.535.684

Card 1/2

L 18469-66

ACC NR: AP6004318

strates. In coatings based on ED-5 resin, degradation takes place after 15-20 days of thermal aging under the indicated conditions. Changes in the physicomechanical properties of epoxy coatings based on E-4100 lacquer and ED-5 resin during thermal aging in a 50% aqueous solution of ethyl alcohol indicate that swelling and drying are different in character: in the first case, the processes are reversible and the physicomechanical properties are retained while in the second case the processes are irreversible. Orig. art. has: 8 figures.

SUB CODE: 07,11/   SUBM DATE: 00/   ORIG REF: 005/   OTH REF: 000

Card 2/2

L 36813-66   EWF(j)/EWT(m)/T/EWF(v)/EWP(t)/ETI   IJP(c)

SOURCE CODE: UR/0020/66/169/001/0146/0149

ACC NR: AP6024415

AUTHOR: Kabanov, V. Ya.; Grozinskaya, Z. P.; Zubov, P. I.; Spitsyn, V. I.
(Academician)

ORG: Institute of Physical Chemistry, Academy of Sciences, SSSR (Institut fizicheskoy khimii Akademii nauk SSSR)

TITLE: The effect of radiation on adhesion of polymer coatings on aluminum

SOURCE: AN SSSR. Doklady, v. 169, no. 1, 1966, 146-149

TOPIC TAGS: protective coating, polymer coating, plastic coating, adhesion, radiation effect, ionizing radiation, electron radiation, aluminum

ABSTRACT: Previous studies by the authors of the effect of ionizing radiation on the adhesion of polyethylene coatings on aluminum foil [Vysokomolek. soyed., v. 8, no. 4, 1966 and DAN, v. 165, no. 3, 1965] were extended to other polymeric coatings of different chemical composition. A comparative study was made of adhesion of 500—600 μ thick epoxy, polyester, perchlorovinyl, and polyurethane coatings before and after irradiation at a low (from a Co^{60} source) or high (∼10^7 rad/sec from a linear accelerator) dose rate of ionizing radiation. A stripping method previously described was used to evaluate adhesion. Energy of adhesion was also determined during irradiation with a high-intensity electron beam (from the linear accelerator).

UDC: 678.744

Card 1/2

L 35313-66

ACC NR: AP6024415

/

An increase in adhesion of all coatings studied was noted after prolonged irradiation at a low dose rate (163 rad/sec), in air or vacuum, together with an increase in rigidity and brittleness of all but the polyurethane coatings. Epoxy coatings exhibited the most notable increase in adhesion. The initial increase in adhesion was explained as the result of radiation-induced formation of polar groups, e.g., OH, C=O, and after hardening of the coatings. In opposition to polyethylene, the energy of adhesion of other coatings was higher under the electron beam than before irradiation. The highest difference in adhesion was noted for epoxy coatings, the lowest for polyurethane coatings. This increase in adhesion was reversible in case of a short-time irradiation, irreversible in case of a longer exposure (higher radiation dose absorbed) to the electron beam. The role of chemical changes in polymers and relaxation processes was discussed to explain the increase in adhesion in polymers exposed to the electron beam. Duration of the exposure to radiation and the presence of oxygen in the coatings' composition were the most important factors contributing to increasing adhesion. Orig. art. has: 1 figure and 3 tables.

[JK]

SUB CODE: 11/ SUBM DATE: 09Dec65/ ORIG REF: 004/ ATD PRESS: 5/35

Card 2/2

ACC NR: AP6013477   SOURCE CODE: UR/0374/66/000/002/0292/0295

AUTHOR: Zubov, P. I.; Sukharova, L. A.; Grozinskaya, Z. P.; Krylova, L. M.; Kochkin, D. A.; Rzayev, Z. M.

ORG: Institute of Physical Chemistry, Academy of Sciences SSSR (Institut fizicheskoy khimii Akademii nauk SSSR)

TITLE: Study of the physicomechanical properties of styromal-base coatings

SOURCE: Mekhanika polimerov, no. 2, 1966, 292-295

TOPIC TAGS: polymer structure, protective coating, solid physical property, solid mechanical property, adhesion

ABSTRACT: A two-component system obtained by copolymerizing styrene with maleic anhydride in the proportion of 1:1 at 60°C without catalyst or solvent was studied. The mechanism of forming was investigated by studying the internal stresses, the structure of the coatings, and the strength and adhesion characteristics. Kinetic data on internal stresses showed that the forming process is practically complete after one hour of curing and that the limiting value of these stresses is independent of the conditions under which the coatings were formed. The effect of forming temperature on the structure was studied by IR spectroscopy. Coatings formed from acetone solutions were

UDC: 678:539.4019

Card 1/2

I. 26116-66

ACC NR: AP6013477

found to have a weak adhesion to glass (6-7 kg/cm^2), but those formed from solutions of styromal in dimethylformamide had a higher adhesion (25 kg/cm^2). The elasticity of the coatings increased upon addition of triethylene glycol diester of methacrylic acid (TGM). An increase in the latter gradually lowered the physicomechanical characteristics of the coatings. Coatings most stable to the action of high temperatures were those obtained from solutions in dimethylformamide containing up to 20% TGM.

Orig. art. has: 6 figures, 1 table.

SUB CODE: 07,11/   SUBM DATE: 21Jun65/   ORIG REF: 005/   OTH REF: 000

Card 2/2

L 43779-66   EWT(m)/EWP(j)/T   IJP(c)   DJ/RM

ACC NR: AP6017859   (A)   SOURCE CODE: UR/0069/66/028/003/0399/0403

AUTHOR: Zubov, P. I.; Kadyrov, M. Sh.; Plavnik, G. M.; Grosinskaya, Z. P.

ORG: Institute of Physical Chemistry, AN SSSR, Moscow (Institut fizicheskoy khimii AN SSSR)

TITLE: Investigation of the wear resistance of epoxy coatings

SOURCE: Kolloidnyy zhurnal, v. 28, no. 3, 1966, 399-403

TOPIC TAGS: wear resistance, friction, resin, titanium dioxide, chromium oxide, epoxy coating, PLASTIC PONTING

ABSTRACT: The wear resistance of epoxy coatings has been investigated. The wear value of ED-5 resin coatings with sliding friction is lower when wear products are removed because the protective lubricating layer formed is removed. The addition of talc and cement reduces the coating wear while the addition of titanium dioxide and chromium oxide increases it. The intensive wear of a counterbody was

Card 1/2   UDC: 641.183

L 43779-66

ACC NR: AP6017859   O

observed in the wearing of coatings filled with cement and chromium oxide. Orig.
art. has: 6 figures and 4 formulas. [Based on authors' abstract]   [NT]

SUB CODE: 11/   SUBM DATE: 29Jul65/   ORIG REF: 006/

OTH REF: NONE

LS
Card   2/2

L 32751-66   EWT(m)/EWP(v)/T/EWP(j)   WW/GW/RM

ACC NR: AP6012707   (A)   SOURCE CODE: UR/0190/66/008/004/0604/0612

AUTHOR: Spitsyn, V. I. ; Zubov, P. I.; Kabanov, V. Ya.; Grozinskaya, Z. P.

ORG: Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii AN SSSR)

TITLE: The effect of radiation on the adhesion of polyethylene to aluminum

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 4, 1966, 604-612

TOPIC TAGS: aluminum, metal coating, radiation effect, adhesion, high temperature
effect, polyethylene plastic

ABSTRACT: It was found that irradiation of a polyethylene coating on aluminum foil
doubles its adhesion. If the coating is heated to the melting point after irradia-
tion, adhesion   triples. The nature of adhesion curves depends greatly on the
type of polyethylene and the air medium. The irradiation of coatings and base
layers is more effective than irradiation of the polyethylene powder alone.   The
increase in adhesion is explained by the radiation-induced oxidation of polyethylene
in the contact area, which favors orientation of the carbonyl groups with respect
to the aluminum oxide film. In addition, flexibility of the chains is increased
in the radiation field, facilitating adhesive-substrate contacts. The decrease
of adhesion with further irradiation is related to increased radiative crosslinking
in polyethylene. The experimental results were confirmed by IR and NMP spectra,
and by measuring the modulus of elasticity of irradiated polyethylene. The authors

Card 1/2   UDC: 678.01:53+678.782

L 32761-66

ACC NR: AP6012707

thank V. F. Chuvayev and S. A. Bakhchisaraytseva for photographing the IR and NMP spectra. Orig. art. has: 5 figures, 7 formulas, and 2 tables. [Based on authors'
[NT]
translation.]

SUB CODE:11, 20/SUBM DATE: 18Mar65/ ORIG REF: 010/ OTH REF: 007/

Card   2/2   BLG

ACC NR: AP6037026   (N)   SOURCE CODE: UR/0374/66/000/005/0651/0658

AUTHOR: Grozinskaya, Z. P.; Kadyrov, M. Sh.; Zubov, P. I.

ORG: Institute of Physical Chemistry, Academy of Sciences, SSSR, Moscow (Institut fizicheskoy khimii Akademii nauk SSSR)

TITLE: Relation of the wear resistance of polymer coatings to their physicomechanical properties

SOURCE: Mekhanika polimerov, no. 5, 1966, 651-658

TOPIC TAGS: wear resistance, plastic coating, elastic modulus

ABSTRACT: An experimental study of the wear resistance of a series of polymer coat-ings exposed to the action of metal counterbodies of various physicomechanical pro-perties has shown an increase in wear with increasing elastic modulus of the polymer coating and a decrease in wear with increasing elastic modulus of the counterbody. The introduction of a filler into the film-forming agent has different effects on the wear resistance of the coatings: mineral fillers increase the modulus and decrease wear, and organic ones decrease both the modulus and wear. The wear resistance of coatings based on ED-5 epoxy resin depends on the type of curing agent and curing time and diminishes with increasing elastic modulus. The magnitude of wear is ex-pressed by a two-term analytical equation which treats the wear of the polymer coating as a function of the counterbody. The magnitude of wear as a function of the physical

Card   1/2   UDC: 678:539.375

ACC NR: AP6037026

state of the polymer coating is expressed in the form of a three-term equation with parameters corresponding to the vitreous, high-elastic and viscofluid states. Orig. art. has: 7 figures, 1 table and 4 formulas.

SUB CODE: 11/ SUBM DATE: 08Aug65/ ORIG REF: 006/ OTH REF: 001

Card 2/2

GROZITSKIY, P.S.

Mechanism for pattern card reduction on a multiple-box loom.
Tekst. prom. 25 no.9:47-49 S '65.
(MIRA 18:10)

1. Starshiy inzh.-ispytatel' Spetsial'nogo konstruktorskogo
byuro po proyektirovaniyu tkatskogo oborudovaniya pri Klimovskom
mashinostroitel'nom zavode.

38198
S/058/62/000/004/001/160
A058/A101

26.2358

AUTHOR: Grozkowski, J.

TITLE: Pulse-compression thermal vacuum gauge

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 16, abstract 4A132
            ("Bull. Acad. polon. sci. Ser. sci. techn.", 1961, 9, no. 5, 305-
            312, English)

TEXT: There was designed a pulse-compression resistance manometer for
measuring pressure in the range from 10^{-3} to 10^{-8} mm hg. In contrast to hot-
cathode oinization manometers, sorbtion, desorbtion, the evacuation effect etc.
do not affect the readings of this manometer. The gas in this manometer is com-
pressed by means of a piston to some small volume, in which there is confined a
sensitive resistance element, connected in the bridge circuit. After compression
the piston seals the aperture leading to the volume with the sensitive element.
As the sensitive element a 2μ X 50μ X 30 mm platinum tape is used. The piston
is displaced by means of an external magnet. Inasmuch as no lubricant is used in
the instrument, the surfaces of the piston and cylinder are polished, and the

Card 1/2

S/058/62/000/004/001/160
A058/A101

Pulse-compression thermal vacuum gauge

instrument itself must operate under pulse conditions in order to minimize the effect of gas leakage through the gap between the piston and the cylinder and of the dead volume between the piston and the bottom of the cylinder. The gap should be $\leq$ 30 μ the dead volume should be $\leq$ 4 μ. Owing to pulse operating conditions, the thermal inertia of the resistance element must be minimized. When a galvonometer with internal resistance R_g = 2,000 ohm and sensitivity 1 mm = 10^{-8} a was used as the bridge-circuit indicator, measurement of a pressure of 10^{-7} mm Hg entailed $\sim$ 8 mm deflection of the galvanometer pointer. The scattering in the readings of the manometer falls withn 10%, and its response is close to linear in logarighmic coordinates. Calibration is effected with the aid of ionization manometers. The pulse-compression resistance manometer can be degassed in a furnace.

L. Shelyakin

(Abstracter's note: Complete translation)

Card 2/2

S/081/62/000/014/032/039
B166/B144

AUTHORS: Mladenov, Iv., Nikolinski, P., Grozlekov, P.

TITLE: Enhancing the compatibility between natural rubber and
            CKC-30 (SKS-30)

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1962, 650, abstract
            14P354 (Kozhi, obuvki, kauchuk, plastmasi, v. 2, no. 4,
            1961, 6 - 8)

TEXT: The pyrolysis product of old rubber from tires (density 0.9234,
iodine number 116.0, Engler viscosity 1.86, boiling point 138°C,
n_D^{20} 1.5142) was oxidized by blowing air or O_2 through it at 130°C, and
5 - 10% of this was introduced into a blend of HK (NK) and butadiene-
styrene rubber (6 : 4) as a plasticizer. The physical and mechanical
properties of such vulcanizates are better than those of vulcanizates
containing stearic acid or unoxidized oil as the softener. The
plasticizer which in least quantity gives the best physical and

Card 1/2

Enhancing the compatibility...

S/081/62/000/014/032/039
B166/B144

mechanical properties is that extracted from the vulcanizate by an alcohol-toluene mixture. [Abstracter's note: Complete translation.]

Card 2/2

Shortcomings in the determination of the need for a product
with regard to the number of flats. Opiton szmaia 5 no. 12
191-195 '64.

1. Technical Organization Mietart, Department Bureau of Con-
struction Industry, Ministry of Building (for Budapest)

GROZMAN, M.M., VASSERMAN, G.S.

Methodology for the determination of calcium and magnesium in blood serum. Lab. delo no.9:554-556 '64.   (MIRA 17:12)

1. Laboratoriya nezaraznykh bolezney sel'skokhozyaystvennykh zhivotnykh Moldavskogo nauchno-issledovatel'skogo instituta zhivotnovodstva i veterinarii, poselok Krikovo, Orgeyevskiy rayon, Moldavskaya SSR.

GROZMAN, O.S., professor (Alma-Ata)

Blood transfusion. Zdorov'e 2 no.1:18-19 Ja '56.   (MLRA 9:3)
    (BLOOD--TRANSFUSION)

RYBINA, N.Ya., starshiy nauchnyy sotrudnik; KUZNETSOVA, M.A., starshiy nauchnyy sotrudnik; GROZMAN, Ya.L.

European corn borer and its control. Zashch.rast. ot vred. i bol. 7 no.8:29-30 Ag '62.   (MIRA 15:12)

1. Kabardino-Balkarskaya sel'skokhozyaystvennaya opytnaya stantsiya (for Rybina, Kuznetsova). 2. Zaveduyushchiy gosudarstvennym sortoispytatel'nym uchastkom, selo Vysokoye, Atakskogo rayona (for Grozman).
                    (Moldavia—European corn borer)
            (Karabardino-Balkar A.S.S.R.—European corn borer)

GROZMANI, N.

Taksmotornyi transport Leningrada. /‾Motor transport of Leningrad‾/. (Avtomobil, 1951, no. 3, p. 11-14).   DLC: TL4.A87

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

GROZHANI, N.; IVANOV, A.; THUBITSYN, O.

Centralized administration of automotive passenger transportation.
Avt.transp. 32 no.5:5-9 My '54. (MLRA 7:7)
    (Motor bus lines) (Taxicabs)

GROZMANI, N., inzhener.

Regularity of bus schedules. Avt. transp. 34 no.8:6-7 Ag '56.
(MLRA 9:10)

1. Leningradskoye upravleniye avtomobil'nogo transporta.
(Motorbus lines)

GROZMANI, N.; GUTTSAYT, R.

    Motorbus transportation in Leningrad. Avt.transp. 40
    no.11:11-12 N '62.   (MIRA 15:12)

    1. Leningradskoye upravleniye avtomobil'nogo transporta.
           (Leningrad—Motorbus lines)

PAVLIN, V., brigadir biskvitnogo agregata moskovskoy fabriki "Bol'she-
    vik"; GROZMANI, V.E., konsul'tant; KORNILOVA, M., redaktor; RAKOVA,I.,
    tekhnicheskiy redaktor.

[At a cookie machine] Ubiskvitnogo agregata. [Moskva] Izd-vo VTsSPS
Profizdat, 1953. 39 p.   (MLRA 7:8)

1. Nachal'nik otdela organizatsii truda biskvitnoy fabriki "Bolshe-
vik." (for Grozmani)
    (Cookies)

GROZHAN, M.M

Bauxite-based iron catalyst in synthesis of hydrocarbons from carbon monoxide and hydrogen. A. N. Bashkirov and M. M. Grozhan. *Khim. i Tekhnol. Topliva* 1956, No. 12, 12-17.—Ground bauxite (2-3 mm.) (14% Fe_2O_3, 68% Al_2O_3, 12% SiO_2, 1.97 TiO_2) was soaked in solns. contg. either K_2CO_3, $Na_2B_4O_7$, KOH, and K_2SiO_3 or their mixts. The catalyst was then annealed 48-1.5 hrs. at 450-1000° in a stream of H. The synthesis of hydrocarbons from CO and H was carried out by the previously described method (cf. Bashkirov, *et al.*, *C.A.* 50, 13332e) at 20 atm. pressure, 1:1 molar ratio of the reactants with vol. rates 700-1800 hrs.⁻¹ With the catalyst contg. 20% K_2CO_3, annealed 2 hrs. at 900°, an 85% conversion of CO to liquid hydrocarbons was obtained for 120 hrs. of continuous service at 285°. The increase in the amt. of K_2CO_3 to 40% raised the yield of the product; however, this was accompanied by an intense C formation. The addn. of 5% and 25% $Na_2B_4O_7$ sharply decreased the yield of liquid hydrocarbons, though the degree of the conversion remained at 87-99.6%. With the catalyst contg. 20% K_2CO_3 and 20% $Na_2B_4O_7$ the conversion was 91% and the amt. of liquid hydrocarbons (>C_4) formed was 110 g./cu.m. reactants. Bauxite impregnated with K_2SiO_3 showed no improvement in its activity or selectivity. —A. P. Kalika

Inst. Petroleum, AS USSR

GROZMANI, V.V.

Increasing strength of sandpaper strips. Sbor.vnedr.rats.pred. v les.
i meb.prom. no.2:120 '59.   (MIRA 13:8)

1. Rizhskiy mebel'nyy kombinat No.6.
                    (Sanding machines)

```
Country      : USSR
Category     : Farm Animals.                              4-3
               Swine.
Abs. Jour    : Ref Zhur-Biol., No 13, 1958, 71072

Author       : Grozhevskaya, S. B.
Institut.    : Molotov Institute of Agriculture.
Title        : The Effects of Manganese, Iron and Copper
               upon the Morphologic Blood Composition and
               Growth of Suckling Piglets with Anemia.
Orig. Pub.   : Tr. Molotovsk. s.-kh. in-t, 1957, 15, 303-311

Abstract     : Anemic suckling piglets which received addi-
               tionally enriched feelings of manganese chlo-
               ride and iron and copper salts, presented a
               larger live weight at weaning (15.5 kg) and a
               higher Hb content (15.3) and erythrocyte count
               (9,780 thousand) of blood than piglets of a
               control group (13.7 kg; 14.0 g; 6,670 thousand).




Card:          1/1.
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58

GROZIN, V.M., gornyy inzh.

Means of increasing the productivity of cable drilling. Gor.
zhur. no.2:35-36 F '61.   (MIRA 14:4)

1. Khar'kovskiy gornyy institut.
                        (Boring)

GROZINSKAYA, Z.P.

Hard facing of metals by ball burnishing.   Trudy Sem.po kach.
poverkh.   no.4:158-163   '59.   (MIRA 13:6)
        (Hard facing)

GROZNAYA, A.

        Ultraviolet irradiation. Azerb. med. zhur. no.9:84 S '62
                               (MIRA 18:1)

38367   GROZNAYA, A. S.

Pedagogicheskaya rabota s nervnymi Det'mi. (opyt raboty Yu. L.
Yurevich. In-t pediatrii Akad. Med. Nauk). Med. sestra, 1949, No 12, s. 16

GROZINSKAYA, Z.P.

Roughness of burnished surfaces. Standartizatsiia 24 no.11:24-26
N '60.   (MIRA 13:11)
        (Surfaces (Technology)--Standards)

GROZNAYA, TS.

Automatic steering apparatus for merchant ships. Mor.flot.
19 no.10:23-26 O '59.   (MIRA 13:2)

1. Starshiy inzhener TSentral'nogo nauchno-issledovatel'skogo
instituta morskogo flota.
            (Steering gear)

YAKUSHENKOV, A.A.; TETYUYEV, B.A.; MITNIK, V.M.; GROZNAYA, TS.I.

Technical and operational characteristics of modern gyrocompasses and
automatic steering gear used on merchant ships. Inform. sbor. TSNIIMF
no.16:3-59 '57.   (MIRA 11:6)
                    (Gyrocompass) (Steering gear)

GROZNAYA, TS.I.; MITNIK, V.M.

Modern sonar devices (echo depth sounders) produced by foreign firms and their future development. Inform. sbor. TSNIIMF no.16:60-103 '57.
(MIRA 11:6)

(Sonar)

TETYUYEV, Boris Aleksandrovich;-GROZNAYA, TSiliya Izrailevna; KHACHATUROV,
    V.V., red.; TIKHONOVA, Ye.A., tekhn.red.

    [Modern automatic steering gears] Sovremennye avtorulevye.
    Moskva, Izd-vo "Morskoi transport," 1960. 78 p.

                                        (MIRA 14:2)

    (Steering gear)   (Automatic control)

ACC NR: AP6018234   (A)   SOURCE CODE: UR/0000/00/000/002/0086/0086

AUTHOR: Groznov, I. (Major); Sedel'nikov, V. (Captain)

ORG: None

TITLE: Savings through improved rail loading techniques

SOURCE: Tyl i snabzheniye sovetskikh vooruzhennykh sil, no. 2, 1966, 86

TOPIC TAGS: railway transportation, transportation equipment, aircraft engine

ABSTRACT: Experiments were conducted in shipping type RD-45 aircraft engines by rail whereby more effective use of the load and volumetric capacity of rolling stock was achieved. Engine containers had been loaded on flat cars and in gondolas lengthwise so that only four containers could be accommodated. Officers of the railway command proposed a new loading system which made more effective use of rail car space. By loading crosswise it was found that a flat car could carry eight containers with engine accessories, or twice as many as before. Savings of almost 10,000 rubles annually resulted on one section alone. Orig. art. has: 1 figure.

SUB CODE: 13,15/SUBM DATE: None

Card 1/1

GROZNOV, M.I., inzhener.

Automatic indicator of the pulverized fuel level. Energetik 4
no.4:10-12 Ap '56.   (MIRA 9:7)
(Coal., Pulverized) (Automatic control)

TROFIMOVA, V.I.; SHTEYMAN, R.A.; SHAPIRO, M.S.; MALEVICH, O.A.; ODINTSOV,
    A.I.; GROZNOV, S.R.; RYBAK, I.A.; SHORIN, G.F.; BELYAKOV, K.M.;
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